


The Role of Work Value Congruence  
on Job Performance and Motivation to Learn



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**ABSTRACT**

This paper examines the pattern of work value congruence across demographic groups, and the impact of person-supervisor work value incongruence on employee job-related outcomes, including job performance and motivation to learn. Value congruence was measured by four work value dimensions within Work Value Inventory (i.e. situational factor, self-expression, behavior control, and goodness of life). 1001 participants were included in Study 1, which demonstrated that participants in different groups of marital status, income level, age group, and education level have different levels of work value congruence. In Study 2, ninety-three pairs of subordinates and corresponding supervisors participated in the study. Results indicated subordinates had lower performance and lower motivation to learn when their values had greater incongruence with their supervisors. The indirect effect of value incongruence in behavior control on job performance was fully

mediated by supervisory support. This finding shows that increases in value incongruence in behavior control will reduce supervisory support, which in turn reduces job performance. Motivation to learn was also negatively affected by person-supervisor value incongruence in behavior control; its effect, however, was only partially mediated by supervisory support.

### 摘要

本研究透過工作價值觀量表探討不同背景的參加者在工作價值一致性上的分別，以及工作價值之一致性跟員工的工作表現和學習動機兩方面的關係。在研究一中，一千零一位參加者參與了研究，並顯示出來自不同婚姻狀況、收入、年齡，及學業程度的參加者均在工作價值一致性上有部分顯著的分別。在研究二中，九十三對下屬和相應的上司參與了是次研究。結果顯示上司和下屬在物質安全、自我表達、行為控制和生活品質四方面的工作價值不一致性，與工作表現和學習動機都有著負面的關係。其中，行為控制的工作價值透過上司的支持度對工作有關的結果產生負面而顯著的間接效果。這結果反映當上司和下屬對行為控制的價值越不一致，下屬從上司中感受到的支持度越低，從而降低工作表現和學習動機。



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## Introduction

With globalization and technological advancement, organization's abilities to cope with rapid changes and stand out from enormous competitions are getting more crucial for survival and blossoming. Evidence supported that an organization has greater chances to achieve higher performance when it can attract, retain and motivate individuals who embrace similar values, norms and beliefs (Bellou, 2009).

Values are defined as desirable states, objects, goals or behaviors that transcend different situations and serve as standards for individuals to judge people, choose actions, justify their behaviors, and give meanings to their lives (Schwartz, 1992). They are regarded as having the greatest impact on behaviors in the absence of task and situational variables, such as incentives or limitations (Meglino, & Ravlin, 1998). Generally, work values specifically refer to outcomes people desire to have and feel they should attain through work (Ben-Shem & Aviltzhak, 1991). They are more fundamental and generalized beliefs about desirability of various aspects of work, such as pay, working conditions, and accomplishment (Ros, Schwartz & Surkiss, 1999). The research on work values has attracted much attention than other life domains, such as family and religion, may be due to the crucial role of work in one's daily lives, forming the basis for family life, social and economic status (Roe & Ester, 1999).



Various meta-analyses and different studies have shown that value congruence relates positively with job satisfaction (Ahmad, 2008; Westerman & Cyr, 2004), commitment (Lauver & Kristof-Brown, 2001), organizational citizenship behaviors (Cable & DeRue, 2002), career success (Bretz & Judge, 1994), and negatively with turnover intentions (O'Reilly, Chatman, & Caldwell, 1991), while incongruence leads to burnout (Kristof-Brown, Zimmerman, & Johnson, 2005; Verquer, Beehr, & Wagner, 2003). Even though a certain level of incongruence between individuals is expected and even motivating, An increased level of incongruence may become a major demotivator for employees. When team members have different values in mind, they may not be able to communicate effectively or co-operate effeciently to achieve team goals. In contrary, value congruence may reduce conflict and improve collaboration (Schein, 1985; Roe & Ester, 1999).

This study has three objectives. The first objective of this study is to explore the current pattern of value congruence across various demographic groups. The second objective is to expand further on work value congruence and examine how work value incongruence link with job-related outcomes. More precisely, it explores how the four dimensions of value incongruence, i.e. situational factor, self expression, behavior control, and goodness of life, link with the two key job-related outcomes of job performance and motivation to learn. The third objective is to test the mediating

role of supervisory support within the relationship between person-supervisor work value incongruence and the job-related outcomes. This information will be useful for top management and human resource management practitioners in achieving business objectives through developing effective workforce planning and talent management policies.

## **Background**

### ***Work Value Congruence***

Past studies have investigated the relationship between individuals and organizations, such as theories of person-environment (PE) fit (Hoggman, & Woehr, 2006; Tak, 2011; Yang, Che, & Spector, 2008). PE fit is broadly defined as the “compatibility between an individual and a work environment that occurs when their characteristics are well matched” (Schneider, 2001). It has been defined in several ways, including value congruence (e.g. Meglino & Ravlin, 1998; Ostroff, Shin, & Kinicki, 2005; Verquer, Beehr, & Wagner, 2003), goal congruence (e.g. Beal, Cohen, Burke, & McLendon, 2003; Kristof-Brown, et. al, 2005), needs-supplies and demands-abilities match (e.g. Cable & DeRue, 2002; Resick & Baltes, 2007), as well as personality-climate fit (e.g. Ryan & Schmit, 1996). Among all, value congruence is a significant form of fit because values are “fundamental and relatively enduring”

(Chatman, 1991). It is the most commonly adopted perspective (Verquer, Beehr, & Wagner, 2003) and has a superior role in affecting work attitudes (Cable and Edwards, 2004). According to Kristof (1996), value congruence refers to the similarity between values held by individuals and environment. It refers to the compatibility between people and organizations that occurs when: (a) at least one entity provides what the other needs, or (b) they share similar fundamental characteristics, or (c) both.

To measure work value congruence, the Work Value Inventory (WVI), developed by Super (1970) was the most popular work value measurement (Chu, 2007) and has been widely used in different countries including UK (Jenkins, 2001), PRC (Li, Liu & Wan, 2008) and Taiwan (Chen, Chu & Wu, 2000). WVI was popular for its tested and proven strong reliability and validity (White, 2005; Zytowski, 1994). It measures the goals that motivate people at work is selected because of. WVI includes 15 universal sub-dimensions of work values. It is. Based on Hendrix and Super (1968), the 15 WVI sub-dimensions can be classified into four dimensions:

- (1) Situational factor captures salary, work environment and relationships at work that can motivate people at work. It includes sub-dimensions of economic returns, security, surroundings, supervisory relations, associates and way of life;
- (2) Self-expression includes the opportunities to face new challenges and to express



self in own ways at workplace. It has sub-dimensions of creativity, intellectual stimulation, and variety;

(3) Behavior control refers to having control in own work and having managerial role.

It includes sub-dimensions of independence, prestige, and management; and

(4) Goodness of life captures the need for higher meaning of life and the need for achievement. It includes altruism, esthetic, and achievement.

Accordingly, this study explores work value congruence in terms of the four dimensions described above – situational factor, goodness of life, self-expression, and behavior control.

## **Study 1**

### **Methodology**

#### *Data and Sample*

Data on a total of 1001 full-time employees was collected using random sampling. Participants were invited to participate in a phone survey in Hong Kong, having a success rate of 44.1%. Assuming confidence level of 95%, the sample error variance was around 3.10% according to a sample size of 1001.

## *Measures*

*Work Value.* Work Value Inventory (WVI) developed by Super (1970) was adopted to develop 16 items to measure individual's work values. WVI was popular for its tested and proven strong reliability and validity (White, 2005; Zytowski, 1994). Each statement asks participants to indicate how important the subject item is, using a five-point scale ranging from "unimportant" (1) to "very important" (5). Based on Hendrix and Super (1968), WVI derived four work value dimensions: situational factor, self-expression, behavior control, and goodness of life.

*Person-Organization Work Value Congruence.* The same 16 items on work value were adopted to measure individuals' perceived work value congruence. Each statement asks participants to indicate the extent to which their existing companies fulfill their expectations on that subject item, using a five-point scale ranging from "to a very low extent" (1) to "to a very high extent" (5).

*Demographics.* Information on gender, age, marital status, education level, and income level was collected to tap basic demographics of the participants.



## Analysis & Results

Sample sizes for each demographic group, as well as the means for each dimension of work value congruence, were illustrated to demonstrate the pattern of work value congruence. One-way ANOVA was used to test the differences among various demographic groups.

Table 1. *Sample Size, and Means of Work Value Congruence*

Demographics		<i>N</i>	<i>M</i> <sub>1</sub>	<i>M</i> <sub>2</sub>	<i>M</i> <sub>3</sub>	<i>M</i> <sub>4</sub>
Gender	Male	491	3.33	3.15	3.16	3.24
	Female	510	3.34	3.09	3.19	3.39
	<i>F</i>		.115	1.37	.19	7.87
Marital Status	Single	374	3.23	3.01	3.00	3.17
	Married	587	3.41	3.18	3.27	3.40
	<i>F</i>		13.12**	9.11**	25.92**	16.50**
Age	Age 18-29	203	3.30	3.05	3.07	3.20
	Age 30-39	227	3.29	3.10	3.12	3.16
	Age 40-49	304	3.31	3.14	3.23	3.31
	Age 50 or above	227	3.45	3.16	3.24	3.56
	<i>F</i>		2.41	.71	2.70*	11.17**
Income	Below HK\$10,000	250	3.21	2.84	2.93	3.22
	HK\$10,000 ~ Below HK\$20,000	317	3.29	3.03	3.09	3.22
	HK\$20,000 ~ Below HK\$30,000	174	3.38	3.28	3.32	3.34
	HK\$30,000 or above	172	3.58	3.47	3.52	3.52
	<i>F</i>		9.48**	23.09**	23.84**	6.54**
Education Level	Primary level or below	49	3.27	2.89	2.91	3.34
	Secondary level	444	3.30	3.03	3.14	3.29
	Tertiary level (non-degree holder)	153	3.28	3.10	3.12	3.25
	Tertiary (undergraduate or above)	315	3.42	3.29	3.29	3.37
	<i>F</i>		2.04	7.05**	4.97**	1.05

Note: *N* = Sample Size; *M*<sub>1</sub> = Means of Value Congruence for Situational Factor; *M*<sub>2</sub> = Means of Value Congruence for Self-expression; *M*<sub>3</sub> = Means of Value Congruence for Behavior Control; *M*<sub>4</sub> = Means of Value Congruence for Goodness of Life.

\**p* < .05. \*\**p* < .01.

Among all demographic variables, gender does not have significant differences in the patterns of congruence for all four dimensions of work value. Whereas marital status, there are significant differences found. Pattern of work value congruence differed significantly across single and married participants for situational factor,  $F(1, 925) = 13.12, p < .0001$ , for self-expression,  $F(1, 953) = 9.11, p = .003$ , for behavior control,  $F(1, 950) = 25.92, p < .0001$ , and for goodness of life,  $F(1, 926) = 16.51, p < .0001$ . Except the value of self-expression, participants who are married generally have a higher level of congruence than participants who are single.

In addition, participants with different income level differed significantly in their patterns of congruence on all four dimensions of work value. For situational factor,  $F(3, 909) = 9.48, p < .0001$ , for self-expression,  $F(1, 936) = 23.09, p < .0001$ , for behavior control,  $F(1, 932) = 23.84, p < .0001$ , and for goodness of life,  $F(1, 909) = 6.54, p < .0001$ . In general, participants in higher income group appear to have higher level of congruence across the four dimensions of work value.

As for age and educational level, the results are mixed. Participants across the four age groups demonstrated significant difference in pattern of congruence for behavior control,  $F(3, 981) = 2.70, p = .05$ , and goodness of life,  $F(3, 958) = 11.16, p < .0001$ , only. Moreover, participants across four educational level demonstrated significant difference for self-expression,  $F(3, 984) = 7.05, p < .0001$ , and behavior

control,  $F(3, 981) = 4.97, p = .002$ , but not for situational factor and goodness of life.

### Discussions

Findings from Study 1 support the notion that the patterns of value congruence differ across demographic groups. Apart from gender, demographic groups including marital status, income level, age, and educational level show significant differences in value congruence in all or some of the four dimensions of work values.

Among all, both marital status and income level reported significant difference of value congruence in all four dimensions with organization. Participants who are married reported significantly higher value congruence with their organizations than those who are single. This may be due to the higher flexibility and adaptability that married people are. According to Sandhu, Khattak, Rout, Williams, Gautam, Baird, and Holdfarb-Rymyantzev (2011), an individual with higher adaptability include the ability to create a family, hold a job and get education. Hence, since married participants had a job, while created a family, they are likely to have higher adaptability. In addition, based on Campbell, Simpson, Kashy, and Fletcher (2001), individuals who are more flexible perceived having higher relationship quality. Similarly, we speculate that the married participants, who are more flexible and



adaptable, are likely to perceive higher value congruence with their organization. Moreover, their higher adaptability may also enable them to build higher congruence with organizations, which in turn provide a stable working environment which married couples usually look for.

Participants with higher income group also reported higher level of congruence across the four dimensions of work value than lower income group. As people with higher income are likely to be in higher positions within organizations, they are also likely to contribute in higher level strategic planning on organizations' development and culture enhancement. In such cases, organizations' values may be a manifestation of their personal values, hence, demonstrating higher value congruence with organization.

Given the significant findings that patterns of congruence differ across some demographic groups, the need for further examination on how such different levels of congruence contribute to different job related outcomes emerged. In addition, within the studies of person-environment fit, the fit between person and supervisor is particularly crucial, when compared to person-organization fit, because supervisors work closely with subordinates, forming one of the most immediate and influential working environment for subordinate. Hence, person-supervisor fit is adopted in Study 2.

## Study 2

### Background & Hypotheses

#### *Value Congruence*

There are several levels of PE fit, including individual's compatibility with his/her organization, job, vocation, team/ group, and supervisors. Out of all, person-supervisor fit focuses on the dyadic relationships between subordinates and supervisors. In this perspective, supervisor's personal characteristics represent the environment. Most PE fit research has covered person-organization (P-O) fit, so as in Study 1, but leaving the importance of person-supervisor fit unattended. Person-supervisor fit is very crucial especially because supervisors work closely with subordinates, and very likely to express values within their interaction. Studies in leader-member exchange have captured the unique relational effect between leader and follower, yet, most emphasis is on the nature of relationship instead of matching their underlying characteristics. In particular, they recommend supervisors to align subordinates' values with their own because shared values may be associated with important positive outcomes (Ashkanasy & O'Connor, 1997; Brown & Trevino, 2009). Hence, this study tries to fill the gap and explore the outcomes of person-supervisor work value congruence.



In measuring value congruence, there are some variations across studies. A direct assessment involves asking individuals to directly report their perceived fit, as in Study 1. An indirect approach assessed fit through comparing the separately rated characteristics of individuals and environments explicitly. Meta-analysis conducted by Kristof-Brown, Zimmerman, and Johnson (2005) showed direct measures generated stronger results than indirect measures in most cases. Yet, they noted the susceptibility of a common method bias in direct assessments of perceived fit. Ahmad (2008) also noted the use of perceived fit may be plagued by the consistency bias (i.e. "I think I fit well, so I must be satisfied with my job."). In addition, indirect measures are said to reflect the actual P-O fit (Bellou, 2009). In view of these, the present study adopts indirect measurement to avoid potential artificial biases by examining objective fit, which is calculated indirectly through comparison of two reported work values by different sources, i.e. supervisors versus subordinates.

### ***Value Congruence and Job-related Outcomes***

Values are considered to be motivating and hence contribute to positive work outcomes (Roe, & Ester, 1999). When individuals share similar values, they tend to perceive and interpret external stimuli similarly, and behave similarly, meaning that they can better predict the behaviors of others and more effectively coordinate their

efforts (Meglino, & Ravlin, 1998). In contrary, when individuals have diverging values, they are less likely to predict others' behaviors which may then reduce their productivity, increase role conflicts, and achieve common goals less effectively. From the limited research on person-supervisor value congruence, Ostroff, Shin, and Kinicki (2005) found that as incongruence with manager increases, employees' job satisfaction and organizational commitment is lower, and they have higher intentions to quit.

#### *a. Value Incongruence & Job Performance*

Lauver and Kristof-Brown (2001) investigated the effect of P-O fit on job performance. They use the reciprocity norm (Gouldner, 1960) and exchange theory (Adams, 1963) to explain the positive relationship found. They explained that, for employees who found greater fit with organization, they tend to engage in positive behaviors as they are given opportunities that can fulfill their needs to a greater extent. In another study by Ahmad (2008), he also found that when supervisor's personality is similar to subordinate's, subordinate will become more satisfied with supervision, with the work, and with the job as a whole. Yet, in his two studies, he found that leader-subordinate congruence does not lead to increased effort at work in one study, but they found a positive relationship with performance in another study. In addition,

an earlier study by Becker, Billings, Eveleth, & Gilbert (1996) noted a negative relationship between P-O value congruence and performance. These inconsistent findings suggested that different aspects of value congruence may induce different findings. Even though its relationships with other job outcomes such as job satisfaction, commitment, and turnover intention are well supported, its relationship with job performance remains unclear. Hence, this study aligns with the negative influence of value incongruence, and explores its four dimensions on objective job performance, as evaluated by respondents' supervisor.

H1: Person-supervisor value incongruence in (a) Situational factor, (b) Self-expression, (c) Behavior control, and (d) Goodness of life, are negatively related to job performance.

#### *b. Value Incongruence & Motivation to Learn*

To face world competitions and continuous knowledge advancement, learning is very crucial in recent world. Individuals who are highly motivated to learn are expected to be benefited through various learning opportunities inside and outside of workplace, hence, contributing to their organizations and achieve greater personal career success (Major, Turner, & Fletcher, 2006). Early studies focus on transfer of training (Baldwin & Ford, 1988), training needs analysis (McClelland, 1993),



structuring on-the-job training (Jacobs & Jones, 1995), and recently on learning-related activities, such as mentoring and coaching. Poell, Dam, and van den Berg (2004) noted that, the new trend regarding the responsibility for learning is shifting from trainers to managers, and now especially to learners themselves. Trainers are no longer assumed as exerting control over learners in terms of what to be learnt and how to learn. Instead, learners own the ex-ante, ex-post, and meta control over the learning process and context. Rowden (2007) emphasized that, because jobs are constantly changing, learning is more appropriate than training for today's business environment.

Motivation to learn consists of two major components: motivation and learning (Blanchard & Thacker, 2007; Noe, 2008). Motivation refers to the direction, persistence and amount of effort that may be devoted by an individual to achieve his/her particular objective. For learning, it can be defined as a relatively permanent change in cognition and behavior. In general, motivation to learn may be defined as "an intense, persistence and the direction of learning new knowledge, skills and attitudes are affected by an individual who has clear goals, puts a high value on outcomes, has high self-efficacy and satisfied with supervisors' treatments" (Ismail, Sieng, Abdullah, & Francis, 2010).

A meta-analysis conducted by Colquitt, LePine, and Noe (2000) found that

internal locus of control, achievement motivation, conscientiousness, pretraining self-efficacy, and low anxiety have positive association with motivation to learn. At the same time, the major goal for adults participating in learning activities is to receive the desirable outcomes, feeling fulfilled and satisfied (Chu, Hsieh, & Chang, 2007). Especially, the most common answer to explain their learning motives is job-related (Chu, Hsieh, & Chang, 2007). Therefore, individuals' personal work values may have an important role in shaping their goals in learning. In particular, McClelland (1985) noted that values direct motivational energies. We are interested to see if work values of supervisors and subordinates affect learning motivation. Since subordinates may be less motivated to learn when supervisors promote values that contradict with what appeals to subordinates, we propose that the greater the value incongruity that supervisors and subordinates share, the lower their motivation to learn.

H2: Person-supervisor value incongruence in (a) Situational factor, (b) Self-expression, (c) Behavior control, and (d) Goodness of life, are negatively related to motivation to learn

c. *Mediating Role of Supervisory Support*

Supervisory support can be defined as the degree to which supervisors value



subordinates' contributions and care about subordinates' well-being (Kottke, & Sharafinski, 1988). When supervisors and subordinates share similar values, supervisors may be able to better understand the needs and concerns of subordinates, thereby provide more support for them, whereas subordinates are more likely to perceive the support that align with their needs.

Past research suggested that supervisory support is related to positive outcomes, such as job satisfaction (e.g. Schaubroeck, & Fink, 1998) and organizational citizenship behavior (e.g. Whittington, Goodwin, & Murray 2004). Kahn (1992) suggested that employees, who perceive more supportive conditions to express their preferred selves at work, tend to be more engaged. Since supervisors usually have closer working relationship with subordinates, they have a crucial role in determining the nature of their immediate environment. When supervisors are unable to provide sufficient support to employees, employees may be less engaged at work and have lower performance.

Further, supervisory support is positively related to on-and off-job learning (Birdi, Allan, & Warr, 1997). Supervisors' usually have control over subordinates' access to learning opportunities (Munro, Holly, & Rainbird, 2000) and learning atmosphere that encourages workers to learn new skills, show more personal initiative and develop new action plans (Frese, Garst, & Fay, 2007). When

supervisors fail to provide sufficient support to subordinates, they can be less motivated to update their knowledge, acquire new skills and have negative attitudes towards learning (Ismail, et al., 2010). Therefore, we propose that perceived supervisory support has mediating role between work value incongruence and job-related outcomes.

H3: Perceived supervisory support mediates the relationship between person-supervisor value congruence and (a) job performance, and (b) motivation to learn.

The model to be tested is shown in Figure 1. As apparent, person-supervisor value incongruence is expected to influence subordinates' job-related outcomes directly and indirectly through perceived supervisory support.

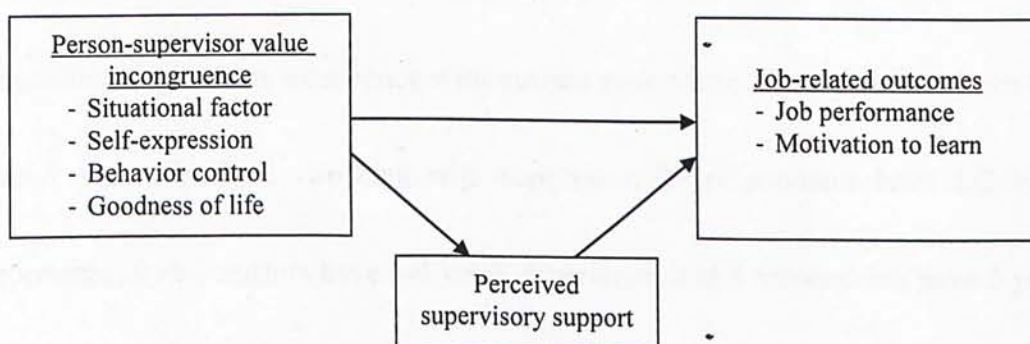


Figure 1. *Person-supervisor value incongruence impact on subordinates' job-related outcomes and the mediating role of perceived supervisory support.*

## **Methodology**

### *Data and Sample*

Data on a total of 186 full-time employees, including 93 pairs of subordinates and corresponding supervisors, were collected. Participants were invited through researchers' personal network. Subordinates were asked to fill in a self-administered questionnaire reporting their work values, perceived supervisory support, and motivation to learn. On the other hand, supervisors were asked to fill in a questionnaire reporting their work values, and rate their subordinates on job performance. Bilingual questionnaires in both web-based and hardcopy versions were available depending on the preference of participants.

Respondents included 50 males and 43 females, with 43 of them aging 30 or below, 31 of them aging 31-40, 2 of them aging 41-50, and 3 of them aging above 50. Regarding respondents' experience with current supervisor, 33 respondents have less than 1 year experience working with supervisor, 29 respondents have 1-2 years experience, 9 respondents have 3-4 years experience, and 8 respondents have 5 years or above experience. Gender, age and years of experience working with supervisor do not have significant correlation with the major variables in the analyses. All data were therefore aggregated for analyses.



## *Measures*

*Person-Supervisor Work Value Incongruence.* Work Value Inventory (WVI) in long version developed by Super (1970) consists of 45 items was used as our measure of individual's work values. WVI was popular for its tested and proven strong reliability and validity (White, 2005; Zytowski, 1994). Each statement asks participants to indicate how important the subject item is, using a five-point scale ranging from "unimportant" (1) to "very important" (5). Based on Hendrix and Super (1968), the 15 WVI dimensions derived four work value dimensions: situational factor, self-expression, behavior control, and goodness of life.

Person-supervisor work value incongruence was computed by getting the absolute difference between subordinate's and corresponding supervisor's score for each sub-dimension of work value. Absolute difference is one of the common congruence indexes used to measure fits and discrepancies, such as those between perceived and desired job attributes, between personal and assigned goals, and similarity or agreement towards attitudes (Edwards, 1994). The higher the value, the higher the value incongruence between how subordinate and supervisor rated that work value's importance. The absence of any discrepancy means that both subordinate and supervisor view the work value similarly. The absolute incongruence

score for each of the four work value dimensions was calculated.

*Job Performance.* Five items were adapted from McCarthy and Goffin (2001) to assess job performance as an objective measure. The direct supervisors rated corresponding subordinates' (1) effectiveness in displaying job knowledge and skill, (2) effectiveness in verbal and written communication, (3) effectiveness in taking charge when required, (4) degree to which they set high standards and strive to meet them, and (5) quickness in learning, on scales of 1 (below standard completely) to 7 (always above standard). A summation of scores of the five items was used to indicate individual's job performance.

*Motivation to Learn.* Four items were included based on previous training program literature (Foxon, 1993; Noe, 2008; Tsai & Tai, 2003; Rodriguez & Gregory, 2005; Ismail, et al., 2010). 5-point scale was adopted ranging from "strongly disagree"(1) to "strongly agree" (5). A summation of scores of the four items was indicated as individual's motivation to learn level.

*Perceived Supervisory Support.* Eight items were included to measure perceived support from supervisor based on previous research (Anderson, & Williams, 1996; Bacharach, Bamberger, & Biron, 2010) with respect to participant's immediate



supervisor. Participants were asked to indicate how often during the past month that supervisor provided them with such support. Five-point scale was adopted ranging from 1 (never) to 5 (always). A summation of scores of the eight items was operationalized as perceived supervisory support.

### *Statistical Analyses*

Means, standard deviations, cronbach's reliability and correlations were calculated to present the general results of the study. They are presented in Table 1. The alpha levels ranged from .83 to .96.

Structural Equation Modeling (SEM) was conducted using EQS computer program (Bentler, 1995). Path analysis was chosen to examine the cause-effect relationship among the selected set of observed variables, which simultaneously estimate all hypothesized paths, and estimation of indirect or mediating effects. The global fit indices ( $\chi^2 = .12$ ,  $df = 1$ ,  $p = .73$ ; NNFI = 1.07; CFI = 1.00; RMSEA < .0001) indicated that the proposed model has an acceptable goodness of fit, even though a significant chi-square test result was found (Bryne, 1994; Hu & Bentler, 1999).

Results

Means, standard deviations, cronbach's reliability and correlations for the variables of interest are presented in Table 2. Reliability estimates were generally high, with all of them exceed .83.

Table 2. Means, Standard Deviations, Cronbach's Reliability, and Correlations

Variable	M	SD	1	2	3	4	5	6	7
1. Incongruence - Situational factor	11.25	10.21	.93 <sup>a</sup>						
2. Incongruence - Self-expression	6.95	5.97	.50**	.92 <sup>a</sup>					
3. Incongruence - Behavior control	6.31	6.15	.56**	.68**	.89 <sup>a</sup>				
4. Incongruence - Goodness of life	6.95	4.79	.49**	.67**	.64**	.83 <sup>a</sup>			
5. Supervisory support	27.95	7.31	-.18	-.16	-.36**	-.21*	.95 <sup>a</sup>		
6. Performance	20.90	7.24	-.51**	-.58**	-.59**	-.59**	.35**	.96 <sup>a</sup>	
7. Motivation to learn	15.40	2.84	-.14	-.27**	-.46**	-.30**	.60**	.36**	.87 <sup>a</sup>

Note: N = 93

<sup>a</sup> Cronbach's reliability coefficient.

\* p < .05. \*\* p < .01.

As anticipated, the value incongruence between supervisor and subordinate had negative relationships with the three outcomes. First, value incongruence had a significantly negative relationship with job performance, supporting H1. The relationships between four dimensions of work value incongruence and job performance were moderately strong ranging from - .51 to - .59. The result demonstrated that when there was a greater incongruence between person-supervisor values, subordinate's job performance had a greater deterioration. Second, the value incongruence between supervisor and subordinate revealed a significantly negative

relationship with motivation to learn, except a similar direction yet non-significant result for value incongruence of situational factor and motivation to learn. Hence, H2b, H2c, and H2d were supported, with values ranging from -.27 to -.46, meaning that when there were higher value incongruence in self-expression, behavior control, and goodness of life, subordinates' motivation to learn were lower.

On the other hand, perceived supervisory support reported negative relationships with all the four dimensions of value incongruence, with statistically significant association with behavior control and goodness of life. It also had positive and significant relationship with the two job-related outcomes – performance, and motivation to learn. These indicated that higher value incongruence is associated with lower supervisory support, and lower supervisory support is associated with lower job performance and motivation to learn.

To test the mediating effect of supervisory support, Structural Equation Modeling (SEM) was conducted. Figure 2 reports the standardized parameter estimates for the revised model generated. The solid lines indicate paths that were confirmed from the hypothesized model. The dashed lines indicate paths that failed to attain the stipulated significance level ( $p < .05$ ). We also examined the predictive validity of the conceptual model and the relative contribution of each of the predictor variables in explaining variations in the key criterion variables, i.e. job performance



and motivation to learn. The results of this analysis are presented in Table 3.

Figure 2. *Standardized structural path estimates suggesting the effect of value incongruence on job-related outcomes*

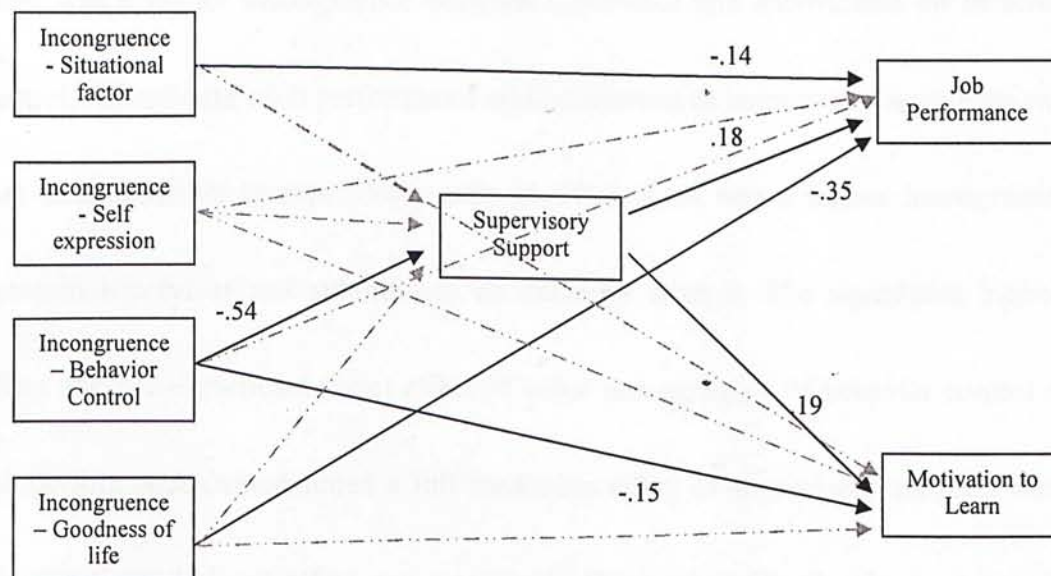


Table 3. *Standardized Direct, indirect, and total effects on job-related outcomes*

	Direct effect	Indirect effect	Total effect
<i>On job performance:</i>			
Incongruence – Situational factor	-.14*	.003	-.19*
Incongruence – Self-expression	-.26	.03	-.18
Incongruence – Behavior control	-.15	-.09*	-.21
Incongruence – Goodness of life	-.35*	-.01	-.24*
<i>On motivation to learn:</i>			
Incongruence – Situational factor	.04	.01	.17
Incongruence – Self-expression	-.02	.08	.05
Incongruence – Behavior control	-.15*	-.23*	-.56*
Incongruence – Goodness of life	-.02	-.02	-.05

\*  $p < .05$

\* marginally significant

Path analysis results show that supervisory support mediated the influence of value incongruence of behavior control towards job performance, and motivation to learn, providing some support for H3a, and H3b. The overall model fit and the

indirect effects support the role of perceived supervisory support in facilitating the relationship between value congruence and job-related outcomes. Specifically, when there was a higher incongruence between supervisor and subordinate on behavior control, subordinate's job performance and motivation to learn were lower. This was due to a reduction in supervisory support when there was a higher incongruence between supervisor and subordinate on behavior control. The significant indirect effect and non-significant direct effect of value incongruence of behavior control on job performance demonstrated a full mediation effect of supervisory support, while the significant indirect effect and significant direct effect of value incongruence of behavior control on motivation to learn shows a partial mediation effect of supervisory support. The four dimensions of value incongruence and supervisory support explained 50.1%, and 44.2%, of the variance of job performance, and motivation to learn respectively.

## **Discussions**

In this study, we sought to clarify the relationship between person-supervisor value incongruence and two key job-related outcomes, i.e. job performance and motivation to learn. Toward this end, the results provide a number of important findings. First, the four dimensions of work value incongruence were negatively

associated with job performance and motivation to learn. Second, perceived supervisory support has a mediating role within the relationship between value incongruence in behavior control and job-related outcomes, showing that increases in value incongruence in behavior control will reduce perceived supervisory support, which in turn reduces job performance and motivation to learn.

## **General Discussions**

### *Research and Practical Implications*

For researchers, our results in the two studies demonstrate differences across different demographic groups, and suggest that nearly all dimensions of value congruence between supervisor and subordinate affect job-related outcomes. Apart from the relationship between situational factor and motivation to learn, all dimensions of value incongruence can significantly and adversely influence job performance and motivation to learn. This result is in consistent with the findings from person-organizational value fit (Lauver, & Kristof-Brown, 2001) and leader-subordinate personality fit (Ahmad, 2008) on performance. According to the concept of reciprocity norm (Gouldner, 1960) and exchange theory (Adams, 1963), subordinates who have greater value fit with their supervisor may engage in more productive behaviors that their supervisors value, as some sort of returning flavour



for having more opportunities given by supervisors which can fulfill their needs and motives.

Our results suggest that the effects of person-supervisor work value incongruence on job-related outcomes are crucial. Results suggested that value incongruence has moderately strong relationship with job performance, and moderate relationship with motivation to learn. For instance, when subordinates highly value economic returns, within the dimension of situation factor, while supervisors do not agree with this, subordinates tends to have lower performance at work. In the same token, when subordinates highly value creativity, within the dimension of self-expression, while supervisors do not, either supervisors do not treasure the creativity that subordinates use in the job task, or subordinates are not given tasks that can demonstrate creativity. This results in being rated lower in performance by supervisor, and subordinates are less engaged at work and less motivated to enroll in learning activities to upgrade their skills and knowledge. According to theories of P-E fit, supervisor acts as the environment in person-supervisor congruence studies. When supervisor values something, while subordinate highly values another thing, supervisor is less likely to offer an environment which subordinate is truly looking for and can be motivated for.

Specifically, the negative effect of the person-supervisor incongruence in

behavior control and the three outcomes were either partially or fully mediated by perceived supervisory support, indicating that the support provided by supervisor has a key role in enhancing subordinates' job behaviors and attitudes. Perhaps behavior control dimension can be better managed by immediate supervisors, by offering subordinates with more autonomy and independence at their work, giving respect and managing opportunities when they similarly think these values are of great importance, subordinates are more likely to perceive greater supervisory support, which in turn perform highly, engaged more, and motivation to learn new knowledge more. As Kahn (1992) suggested, when supervisors provide more supportive conditions for subordinates, subordinates can have a closer working relationship with supervisors. They have better communication, more learning opportunities (Munro, et al., 2000), better cooperation (Roe & Ester, 1999), and more likely to achieve common goals more effectively and in positive mood. They will then become more engaged, perform better, and more motivated to learn more both on-and off-job (Birdi, et al., 1997; Ismail, et al., 2010) and achieve higher goals.

For practitioners, our results have prominent implications for workforce planning. In consistent with most of our hypotheses, the current finding supported the general theme that person-supervisor value incongruence can bring about negative job-related outcomes. Thus, this finding is remarkable in highlighting the

importance of having person-supervisor value congruence at workplace. After knowing how values can enhance or restrain occupational activities, Roe and Ester (1999) suggested two main approaches to optimization of work activity and outcomes. One approach is to modify the values by means of educational or propagandistic interventions. Organizations may launch cultural change program that particularly address certain dimension of value congruence, such as the value on behavior control. Such program can modify the values of current employees and enhance greater homogeneity between supervisors and subordinates. Although some people argued that values are relatively stable, values are still able to be changed through long term interventions (Meglino, & Ravlin, 1998). Values may be reinforced more effectively by daily practices and peer influence through socialization, rather than changed merely by an intervention with limited scope and duration. Hence, aligning values between supervisors and subordinates should be encouraged as a long term socialization. Another approach is based on personnel selection. For instance, selecting people with appropriate values that match with supervisor, or transferring employee from one team to another that help aligning team members having similar values with supervisors. Corporations may also use instruments such as WVI in practical settings for selection and job rotation purpose for better matching people with similar values so as to survive and thrive in current



market situation.

### *Limitations and Future Research Directions*

As is the case with any study, there are limitations to the conclusions that can be drawn from these results. The small sample size limits the generalizability of the study. Our sampling strategy mainly invites people through researchers' network may lead to having confounding variables such as respondents' job nature and age range. A larger sample size involving more companies and a broader job variety may increase the representativeness of the study.

In addition, our sample only involves respondents from Hong Kong. Cross cultural study would be insightful because there may be cultural difference in the threshold of accepting value incongruence among supervisors and subordinates. As diversity is found to be positively associated with creativity (Jackson, 1992), problem solving (Watson, Kumar, & Michaelsen, 1993), and productivity (Richard, 2000), some sort of heterogeneity may be beneficial at work. Other countries with more individualistic culture than Hong Kong, which is a relatively collectivist region, may view difference and incongruence differently from the current study.

Moreover, the process about how value increase attitudes and behaviors remain unclear. The current study found that supervisory support has an important role in

mediating the effect of value incongruence on job performance and motivation to learn. It is possible that other factors, such as organizational support, job satisfaction, and job task, may influence the causal relationship. Future research in this area should continue to develop causal models that seek to explain relationships between antecedents and consequences of value congruence. To fully realize the value of such models, longitudinal designs are recommended to understand the long term impact of value congruence as well.

### **Conclusion**

This study is concerned with investigating the pattern of value congruence across demographic groups and the role of various dimensions of value congruence in predicting job-related outcomes. It concluded that nearly all dimensions of value congruence are associated with job performance and motivation to learn, and the important mediating role of perceived supervisory support within the relationships.

The findings make an important contribution to the literature. Despite the limitations identified, it is strongly believes that the findings of the present study add to the existing knowledge of how employees respond to their actual level of value congruence with their supervisor and can help supervisors encourage staff's job performance and motivation to learn. Given the significance of personal work values

that became evident, future researchers should focus on understanding how each dimension of value congruence influence employees' job-related outcomes, and how such process functions, in order to provide organizations with better understanding of organizational behavior.



## References

- Adams (1963). Toward an understanding of inequity. *Journal of Abnormal and Social Psychology*, 67(5), 422-436.
- Ahmad, K. Z. (2008). Relationship between leader-subordinate personality congruence and performance and satisfaction in the UK. *Leadership & Organization Development Journal*, 29(5), 396-411.
- Ahmad, K. Z. (2008). Work value congruence and satisfaction at work: Is this western concept applicable to a developing country such as Malaysia? *Asian Journal of Business and Accounting*, 1(1), 131-156.
- Anderson, S.E., & Williams, L.J. (1996). Interpersonal, job, and individual factors related to helping processes at work. *Journal of Applied Psychology*, 81 (3), 282-296.
- Aselstine, K., & Alletson, K. (2006). A new deal for the 21st century workplace. *Ivey Business Journal*, 70(4), 1-9.
- Ashkanasy, N. M., & O'Connor, C. (1997). Value congruence in leader-member exchange. *Journal of Social Psychology*, 137, 647-662.
- Bacharach, S.B., Bamberger, P. & Biron, M. (2010). Alcohol consumption and workplace absenteeism: The moderating effect of social support. *Journal of Applied Psychology*, 95(2), 334-348.
- Baldwin, T.T., & Ford, J.K. (1988). Transfer of training: A review and directions for future research. *Personnel Psychology*, 41, 63-105.
- Beal, D. J., Cohen, R. R., Burke, M. J., & McLendon, C. L. (2003). Cohesion and performance in groups: A meta-analytic clarification of construct relations. *Journal of Applied Psychology*, 88, 989-1004.
- Becker, T.E., Billings, R.S., Eveleth, D.M., & Gilbert, N.L. (1996). Foci and bases of employee commitment: Implications for job performance. *Academy of Management Journal*, 39, 464-482.
- Bellou, V. (2009). Matching individuals and organizations: evidence from the Greek public sector. *Employee Relations*, 31 (5), 455-470.
- Ben-Shem, I., & Aviltzhak, T.E (1991). On work values and career choice in freshmen students: the case of helping vs. other professions. *Journal of Vocational Behavior*, 39, 369-379.

- Bentler, P.M. (1995). *EQS structural equations program manual*. Encino, CA: Multivariate Software.
- Blanchard, P.N., & Thacker, J.W. (2007). *Effective training: systems, strategies, and practices*. USA: Pearson Prentice-Hall.
- Birdi, K., Allan, C., & Warr, P. (1997). Correlates of perceived outcomes of four types of employee development activity. *Journal of Applied Psychology*, 82, 845-857.
- Bono, J. E., & Judge, T. A. (2003). Self-concordance at work: Toward understanding the motivational effects of transformational leaders. *Academy of Management Journal*, 46, 554-571.
- Bretz, R.D. & Judge, T.A. (1994). Person-organization fit and the theory of work adjustment: implications for satisfaction, tenure and career success. *Journal of Vocational Behavior*, 44, 32-54.
- Brown, M. E., & Trevino, L. K. (2009). Leader-follower values congruence: Are socialized charismatic leaders better able to achieve it? *Journal of Applied Psychology*, 94 (2), 478-490.
- Byrne, B.M. (1994). *Structural equation modeling with EQS and EQS/Windows: Basic concepts, applications, and programming*. Thousand Oaks CA: Sage.
- Cable, D.M., & DeRue, D.S. (2002). The convergent and discriminant validity of subjective fit perceptions. *Journal of Applied Psychology*, 87, 875-884.
- Cable, D. M., & Edwards, J. R. (2004). Complementary and supplementary fit: A theoretical and empirical integration. *Journal of Applied Psychology*, 89, 822-834.
- Campbell, L., Simpson, J.A., Kashy, D.A., & Fletcher, G.J.O. (2001). Ideal standards, the self, and flexibility of ideals in close relationships. *Personality and Social Psychology Bulletin*, 27 (4), 447-462.
- Chatman, J.A. (1991). Matching people and organizations: selection of socialization in public accounting firms. *Administrative Science Quarterly*, 14, 459-484.
- Chen, J., Chu, K., & Wu, W. (2000). Tourism student's perceptions of work values: a case of Taiwanese universities. *International Journal of Contemporary Hospitality Management*, 12 (6), 360-365.
- Chu, K.H. (2007). A factorial validation of work value structure: Second-order confirmatory factor analysis and its implications. *Tourism Management*, 29 (2),



320-330.

- Chu, H., Hsieh, M., & Chang, S. (2007). A Study of Career Development, Learning Motivation, and Learning Satisfaction of Adult Learners in Unconventional Scheduling Graduate Programs. Retrieved June 6, 2010, from [http://www.eric.ed.gov/ERICDocs/data/ericdocs2sql/content\\_storage\\_01/0000019b/80/43/d5/8a.pdf](http://www.eric.ed.gov/ERICDocs/data/ericdocs2sql/content_storage_01/0000019b/80/43/d5/8a.pdf)
- Christian, M. S., & Slaughter, J. E. (2007). Work engagement: A meta-analytic review and directions for research in an emerging area. Paper presented at the sixty-seventh annual meeting of the Academy of Management, Philadelphia, PA.
- Colquitt, J.A., LePine, J.A., & Noe, R.A. (2000). Toward an integrative theory of training motivation: A meta-analytic path analysis of 20 years of research. *Journal of Applied Psychology*, 85(5), 678-707.
- Edwards, J.R. (1994). The study of congruence in organizational behavior research: Critique and a proposed alternative. *Organizational Behavior and Human Decision Processes*, 58, 51-100.
- Foxon, M. (1993). A process approach to the transfer of training part 1: the impact of motivation and supervisor support on transfer maintenance. *Australian Journal of Educational Technology*, 9 (2), 130-143.
- Frese, M., Garst, H., & Fay, D. (2007). Making things happen: Reciprocal relationships between work characteristics and personal initiative in a four-wave longitudinal structural equation model. *Journal of Applied Psychology*, 92, 1084-1102.
- Gouldner, A.W. (1960). The norm of reciprocity. *American Sociological Review*, 24, 165-167.
- Hakanen, J. (2002). From burnout to job engagement – validation of the Finnish version of an instrument for measuring job engagement (UWES) in an educational organization. *Työ ja Ihminen*, 16, 42-58.
- Harter, J.K., Schmidt, F.I., & Hayes, T.K. (2002). Business-unit level relationship between employee satisfaction, employee engagement, and business outcomes: a meta-analysis. *Journal of Applied Psychology*, 87, 268-279.
- Harter, J.K., Schmidt, F.I., Killham, E.A., & Asplund, J.W. (2006). Q12 meta-analysis (Technical paper). Omaha, NE: Gallup.
- Hendrix, V., & Super, D.E. (1968). Factor dimensions and reliability of the work



- values inventory. *Vocational Guidance Quarterly*, 17, 269-274.
- Hoffman, B.J., & Woehr, D.J. (2006). A quantitative review of the relationship between person-organizational fit and behavioral outcomes. *Journal of Vocational Behavior*, 68, 389-399.
- Hu, L., & Bentler, P.M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling*, 6, 1-55.
- Ismail, A., Sieng, L.L.C., Abdullah, M.M.B., & Francis, S.K. (2010). Linking supervisor's role in training programs to motivation to learn as an antecedent of job performance. *Intangible Capital*, 6 (1), 1-25.
- Jackson, S.E. (1992). Team composition in organizational settings: issues in managing an increasingly diverse work force. In Worchel, S., Wood, W., & Simpson, J.A. (Eds). *Group Process and Productivity*. Sage Publications, Newbury Park, CA, 138-173.
- Jacobs, R.L., & Jones, M.J. (1995). *Structured on-the-job training: Unleashing employee expertise in the workplace*. San Francisco: Berrett-Koehler.
- Jenkins, A.K. (2001). Making a career of it? Hospitality students' future perspectives: An Anglo-Dutch study. *International Journal of Contemporary Hospitality Management*, 13, 13 - 20.
- Kahn, W.A. (1990). Psychological conditions of personal engagement and disengagement at work. *Academy of Management Journal*, 33, 692-724.
- Kahn, W.A. (1992). To be full there: Psychological presence at work. *Human Relations*, 45, 321-349.
- Kristof, A. L. (1996). Person-Organization fit: An integrative review of its conceptualizations, measurements, and implications. *Personnel Psychology*, 49, 1-49.
- Kristof, A. L., Zimmerman, R. D., & Johnson, E. C. (2005). Consequences of individuals' fit at work: A meta-analysis of person-job, person-organization, person-group, and person-supervisor fit. *Personnel Psychology*, 58, 281-342.
- Lauver, K.J., & Kristof-Brown, A.L. (2001). Distinguishing between employee's perceptions of person-job and person-organization fit. *Journal of Vocational Behavior*, 59, 454-470.
- Li, W., Liu, X., & Wan, W. (2008). Demographic effects of work values and their

- management implications. *Journal of Business Ethics*, 81, 875-855.
- Macey, W.H., & Schneider, B. (2008). The meaning of employee engagement. *Industrial and Organizational Psychology*, 1, 3-30.
- Major, D.A., Turner, J.E., & Fletcher, T.D. (2006). Linking proactive personality and the big five to motivation to learn and development activity. *Journal of Applied Psychology*, 91(4), 927-935.
- McCarthy, J.M., & Goffin, R.D. (2001). Improving the validity of letters of recommendation: An investigation of three standardized reference forms. *Military Psychology*, 13, 199-222.
- McClelland, D.C. (1985). How motivates, skills, and values determine what people do. *American Psychologist*, 40, 812-825.
- McClelland, S.B. (1993). Training needs assessment: An "open-systems" application. *Journal of European Industrial Training*, 17(1), 12-17.
- Meglino, B.M., & Ravlin, E.C. (1998). Individual values in organizations: concepts, controversies, and research. *Journal of Management*, 24(3), 351-389.
- Munro, A., Holly, L., & Rainbird, H. (2000). "My ladies aren't interested in learning": Managers, supervisors and the social context of learning. *International Review of Education*, 46(6), 515-528.
- Noe, R.A. (2008). *Employee Training and Development*. New York: McGraw Hill.
- O'Reilly, C.A., Chatman, J., & Caldwell, D.F. (1991). People and organizational culture: a profile comparison approach to assessing person-organization fit. *Academy of Management Journal*, 34, 487-516.
- Ostroff, C., Shin, Y., & Kinicki, A.J. (2005). Multiple perspectives of congruence: relationships between value congruence and employee attitudes. *Journal of Organizational Behavior*, 26, 591-623.
- Poell, R.F., van Dam, K., & van den Berg, P.T. (2004). Organising learning in work contexts. *Applied Psychology: An International Review*, 53(4), 529-540.
- Resick, C. J., Baltes, B.B., Shantz, C.W. (2007). Person-organization fit and work-related attitudes and decisions: Examining interactive effects with job fit and conscientiousness. *Journal of Applied Psychology*, 92(5), 1446-1455.
- Richard, O. (2000). Racial diversity, business strategy and firm performance: a resource-based view. *Academy of Management Journal*, 43, 164-177.



- Rodriguez, C.M., & Gregory, S. (2005). Qualitative study of transfer of training of student employees in a service industry. *Journal of Hospitality and Tourism Research*, 29(1), 42-66.
- Roe, R. A., & Ester, P. (1999). Values and work: Empirical findings and theoretical perspective. *Applied Psychology: An International Review*, 48(1), 1-21.
- Ros, M., Schwartz, S.H., & Surkiss, S. (1999). Basic individual values, work values, and the meaning of work. *Applied Psychology: An International Review*, 48, 49-71.
- Rowden, R. W. (2007) Workplace Learning: Principles and Practice. *Australian Journal of Adult Learning*, 47 (1), 139-142.
- Ryan, A.M., & Schmit, M.J. (1996). An assessment of organizational climate and P-E fit: a tool for organizational change. *The International Journal of Organizational Analysis*, 4(1), 75-95.
- Sandhu, G.S., Khattak, M., Rout, P., Williams, M.E., Gautam, S., Baird, B., & Goldfarb-Rumyantzev, A.S. (2011). Social adaptability index: application and outcomes in a dialysis population. *Nephrol Dial Transplant*, 26 (8), 2667-74.
- Schaubroeck, J., & Fink, L.S. (1998). Facilitating and inhibiting effects of job control and social support on stress outcomes and role behavior: A contingency model. *Journal of Organizational Behavior*, 19, 167-195.
- Schaufeli, W.B., & Bakker, A.B. (2003). UWES – utrecht work engagement scale: test manual. Department of Psychology, Utrecht University, Utrecht, available at: [www.schaufeli.com](http://www.schaufeli.com).
- Schaufeli, W.B., Bakker, A.B., & Salanova, M. (2006). The measurement of work engagement with a brief questionnaire: a cross-national study. *Educational and Psychological Measurement*, 66, 701-716.
- Schaufeli, W.B., Martinez, I.M., Pinto, A.M., Salanova, M., & Bakker, A.B. (2002). Burnout and engagement in university students. *Journal of Cross-Cultural Psychology*, 33, 464-481.
- Schaufeli, W.B., Salanova, M., González-Romá, V., & Bakker, A.B. (2002). The measurement of engagement and burnout and: a confirmative analytic approach. *Journal of Happiness Studies*, 3, 71-92.
- Schneider, B. (2001). Fits about fit. *Applied Psychology: An International Review*, 50(1), 141-152.



- Schwartz, S.H. (1992). Universals in the content and structure of values: theoretical advances and empirical tests in 20 countries. In M.P. Zanna (Ed.), *Advances in experimental social psychology* (pp. 1-65). CA: Academic Press, San Diego.
- Shimazu, A., Schaufeli, W.B., Kosugi, S., Suzuki, A., Nashiwa, H., & Kato, A., (2008). Work engagement in Japan: Development and validation of the Japanese version of the Utrecht Work Engagement Scale. *Applied Psychology: An International Review*, 57, 510-523.
- Sonnentag, S. (2003). Recovery, work engagement, and proactive behavior: a new look at the interface between non-work and work. *Journal of Applied Psychology*, 88, 518-528.
- Storm, K., & Rothmann, I. (2003). A psychometric analysis of the Utrecht Work Engagement Scale in the South African police service. *South African Journal of Industrial Psychology*, 29, 62-70.
- Super, D.E. (1970). *Work Values Inventory*. Houghton Mifflin, Boston, MA.
- Tak, J. (2011). Relationships between various person-environment fit types and employee withdrawal behavior: A longitudinal study. *Journal of Vocational Behavior*, 78, 315-320.
- Tsai, W., & Tai, W. (2003). Perceived importance as a mediator of the relationship between training assignment and training motivation. *Personal Review*, 31 (2), 151-163.
- Van Vianen, A.E.M. (2000). Person-organization fit: the match between newcomers' and recruiters' preferences for organizational cultures. *Personnel Psychology*, 53, 113-149.
- Verquer, M.L., Beehr, T.A., & Wagner, S.H. (2003). A meta-analysis of relations between person-organization fit and work attitudes. *Journal of Vocational Behavior*, 63, 473-489.
- Watson, W., Kumar, K., & Michaelsen, L. (1993). Cultural diversity's impact on interaction process and performance: comparing homogeneous and diverse task groups. *Academy of Management Journal*, 35, 590-602.
- Westerman, J.W., & Cyr, L.A. (2004). An integrative analysis of person-organization fit theories. *International Journal of Selection and Assessment*, 12(3), 252-261.
- White, C. (2005). The relationship between cultural values and individual work values in the hospitality industry. *International Journal of Tourism Research*,

7(4), 221-229.

- Whittington, J.I., Goodwin, V.L., & Murray, B. (2004). Transformational leadership, goal difficulty, and job design: Independent and interactive effects on employee outcomes. *The Leadership Quarterly*, 15, 593-606.
- Williams, S. (2002). Strategic planning and organizational values: Links to alignment. *Human Resources Development International*, 5(2), 217-233.
- Yang, L., Che, H., & Spector, P. (2008). Job stress and well-being: An examination from the view of person-environment fit. *Journal of Occupational and Organizational Psychology*, 81, 567-587.
- Zytowski, D.G. (1994). A super contribution to vocational theory: work values. *The Career Development Quarterly*, 43, 25-31.





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